

## 5. Other CEQA Considerations

---

### 5.1 Growth-Inducing Impacts

Pursuant to Section 15126.2(d) of the State CEQA Guidelines, an EIR must address whether the proposed project would directly or indirectly foster growth. This section analyzes whether the proposed project would directly or indirectly induce economic, population, or housing growth in the surrounding area.

The growth-inducing potential of a project would be significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans. Significant growth impacts also could occur if the project would provide infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

The Tehachapi East Afterbay Project would not, directly or indirectly, facilitate increased water deliveries to State Water Project contractors. The proposed project would provide additional storage based on existing design pumping rates to continue water deliveries for short periods when the Edmonston Pumping Plant is not operating or is operating at reduced capacity. It would not increase pumping rates or service capacity, as the East Afterbay has been designed based on the existing design pumping rates. Therefore, the proposed project would not induce growth because it would not increase water supplies nor increase capacity for making water deliveries via the State Water Project.

While the proposed project would include the construction of new infrastructure for the California Aqueduct, it would not be associated with nor would it induce population growth. Growth is determined through local processes (i.e., planning, entitlements, policies, etc.) and is not determined by the CDWR.

During construction, only a small number of the construction workers, if any, would relocate to the area since there is an adequate skilled labor pool within commuting distance to the proposed project site. Should any number of the construction workers temporarily relocate to the project area, sufficient vacant housing units or temporary living quarters (hotels, motels, etc.) would be available to accommodate the workers. Operation of the proposed East Afterbay would not require additional permanent employees and, therefore, would not entail any employment increase that might lead to demand for new housing or an increase in population growth. Therefore, project construction and operation would not, directly or indirectly, induce economic, population, or housing growth in the surrounding area or the region.

### 5.2 Significant Irreversible Environmental Changes

State CEQA Guidelines (Section 15126.2(c)) require an evaluation of the significant irreversible environmental changes that would be caused by a project if implemented, as described:

*Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse there after unlikely. Primary impacts, and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also,*

*irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

In general, the State CEQA Guidelines refer to the need to evaluate and justify the consumption of nonrenewable resources and the extent to which the project commits future generations to similar uses of nonrenewable resources. In addition, CEQA requires that irreversible damage resulting from an environmental accident associated with the project be evaluated.

Determining whether the project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed, such that there is a small possibility of restoring them. The construction of the Tehachapi East Afterbay Project would not result in the consumption of nonrenewable resources to the extent to which the project commits future generations to similar uses of nonrenewable resources. No such degradation or destruction of resources would result with the Tehachapi East Afterbay Project.

While various natural resources, such as construction materials and petroleum-based fuel, would be used in construction, their use in this project would not result in substantial resource depletion. The purpose of the Tehachapi East Afterbay Project is to shift the pumping load of the Valley String Pumping Plants from peak (high demand) periods to off-peak (low demand) periods. The additional storage provided by the East Afterbay would allow facilities on the West Branch and East Branch of the California Aqueduct to continue operations when the Edmonston Pumping Plant is not operating or is operating at reduced capacity. The proposed project would provide operational flexibility allowing electrical energy to be delivered to other users during periods of peak energy demand. The amount of energy required to pump a given amount of water would remain the same with or without the proposed project. While this project would not conserve energy, the total energy used as a result of the proposed project would remain unchanged. Therefore, the proposed project would not result in substantial resource depletion.

The construction and operation of the proposed project would not present any serious risk of an environmental accident likely to result in irreversible damage. The proposed project would use small volumes of petroleum hydrocarbons and their derivatives (e.g., gasoline, oils, lubricants, and solvents) to operate construction equipment. Storage of substantial quantities of these materials at the construction site would not occur. Construction vehicles on site may require routine or emergency maintenance that could result in the release of oil, diesel fuel, transmission fluid or other materials. However, existing regulations and best management practices (BMPs) for the handling of these substance and procedures for spill containment should be sufficient to avoid irreversible environmental damage.

Operation of the Tehachapi East Afterbay would require the use of liquid petroleum gasoline (LPG) for the emergency generator, and aquatic pesticides for maintaining the water quality within the afterbay. The LPG tank would be designed with secondary containment, as discussed in the environmental commitments (Section 2.5), and would be operated following existing regulations and BMPs to avoid irreversible environmental damage. The storage, handling, and application of pesticides for maintenance of the facility are actions routinely carried out at other CDWR facilities along the aqueduct. The application of aquatic pesticides is carried out under the conditions set forth in a general statewide National Pollutant Discharge Elimination System (NPDES) permit that covers all State Water Project (SWP) facilities. The statewide permit for aquatic

pesticide application will be amended to include the Tehachapi East Afterbay. Additionally, mitigation measure BIO-1 (see Section 3.2.4.2) states that the use of herbicides and pesticides for maintenance purposes shall be done in a manner consistent with USEPA label instructions and other appropriate pollution prevention precautions, the NPDES permit for the application of aquatic pesticides, as well as CDWR protocol. Therefore, the use of aquatic pesticides would not present any serious risk of an environmental accident likely to result in irreversible damage.

### **5.3 Cumulative Impacts**

Section 15130 of the State CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. When an incremental effect is not cumulatively considerable, a lead agency need not consider that effect significant. The State CEQA Guidelines require the discussion to reflect the severity of the impacts and the likelihood of their occurrence, but need not provide as much detail as the discussion of impacts attributed solely to the proposed project. If the project's cumulative environmental impacts are not found to be significant, the discussion is required to briefly support these findings.

Also required in Section 15130 of the State CEQA Guidelines is the use of one of the following methods for adequately evaluating the cumulative impacts of the proposed project:

- A summary of growth projections in an adopted general plan or in a prior certified environmental document; or
- A compiled list of past, present, and probable future projects producing related or cumulative impacts.

For the purposes of this Draft EIR, a list of past, present, and future projects has been used to evaluate cumulative impacts.

The cumulative project list includes projects that are either reasonably foreseeable or are expected to be constructed or operated during the life of the proposed project. This list was developed in consultation with the following regional agencies, county planners, and local developers:

- California Department of Transportation (Caltrans 2004),
- Kern County Air Pollution Control District (KCAPCD 2004),
- Kern County Planning Department (Kern County 2004c),
- Los Angeles County Supervisor, Antelope Valley Office (LA County 2003),
- Los Angeles County Regional Planning Department (LA County 2004), and
- Centennial Founders, LLC (Centennial 2004a and 2004b).

These agencies were requested to provide information on all projects that are being considered in their planning processes. Any current or future project identified by one of the above agencies, which is expected to occur within approximately 20 miles of the proposed project, is listed in Table 5-1 and shown in Figure 5-1.

Impacts from the proposed project that may contribute to cumulative impacts could occur during construction and/or operation of the East Afterbay. Construction of the proposed project is expected to occur over a 17-

month period, and is tentatively scheduled for February 2005 to June 2006, while operation of the proposed project would coincide with the operation of the existing afterbay.

**Table 5-1. Related Projects**

<b>Name</b>	<b>Type</b>	<b>Description</b>	<b>Location</b>	<b>Air Basin</b>	<b>Status</b>
Centennial Project	Land Development -Residential, Commercial	11,700-acre community development includes new homes and designated commercial business areas	60 miles north of Los Angeles and 40 miles south of Bakersfield, near the junction of I- 5 and SR-138 on Tejon Ranch property. Located less than one mile west and south of the proposed project.	MDAB	A proposed Specific Plan is currently under review by Los Angeles County. A NOP was released and comments have been received; The Draft EIR has not been issued, and a date has not been set.
Cemetery Project	Cemetery	Community cemetery would serve the Quail Lake area	Along Old Ridge Route, less than one mile south of SR-138. Located approximately four miles south of the proposed project.	SCAB	Application not yet submitted. Information received July 2002.
National Cement Company Fuel Augmentation Project	Commercial	Augment petroleum coke fuel with chipped recycled tires	Off SR-138, five miles east of Lebec. Located approximately three miles west of the proposed project.	MDAB	Draft EIR was released in May 2004. The EIR is expected to be finalized in early fall 2004. If approved, the project would be operational shortly thereafter; by fall/winter 2004.
Tejon Industrial Project East & West	Land Development -Industrial	1,109-acres general industrial; 250,000 square feet for highway commercial use	30 miles south of the I-5 and 99 junction. Development will be adjacent to the I-5, both east and west of the freeway. Located approximately 13 miles northwest of the proposed project.	SJVAB	EIR for Tejon Industrial Project (West) certified (2000) and the project is currently in construction. EIR for Tejon (East) certified but under litigation. Kern County estimates the supplemental analysis will be released for public review in the late fall of 2004. This supplement will focus mainly on air quality impacts. Each project would be completed approximately 10 years from the start of construction.
Racetrack and Caretaker structure within SEA	Private Recreation Facility	Construction of racetrack and caretaker structure	Located south of Avenue D (Highway 138), west of 150 <sup>th</sup> Street West (North of California Poppy Preserve)	MDAB	Application extension granted in June 2004.

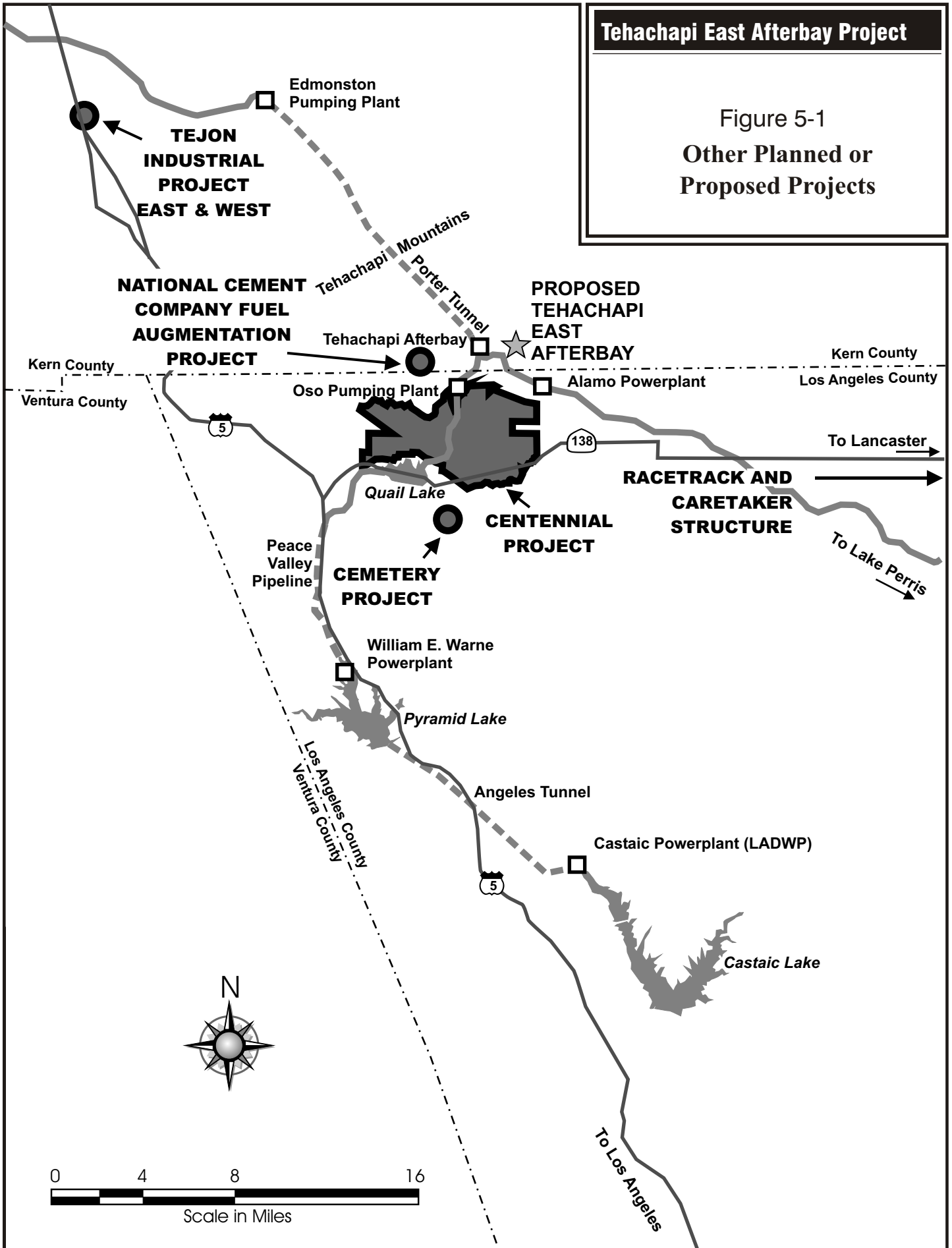
Source: (Centennial, 2004c), (LA County 2003, 2004), (Kern County 2004c), (KCAPCD 2004)

Notes: MDAB = Mojave Desert Air Basin, SCAB = South Coast Air Basin, SJVAB = San Joaquin Valley Air Basin

Cumulative impacts associated with the construction and operations of the proposed Tehachapi East Afterbay are discussed below for each issue area.

**Tehachapi East Afterbay Project**

Figure 5-1  
Other Planned or  
Proposed Projects



**Aesthetics.** Substantial changes in visual conditions in the project vicinity may occur as a result of those projects located within a close proximity to the proposed Tehachapi East Afterbay during its construction and operation. Such projects include the Centennial Project and the Cemetery project listed in Table 5-1, which would be located just south of the proposed project. Construction of these projects is not expected to begin until after completion of the East Afterbay. Construction of the Centennial Project would begin no earlier than 2006 (Centennial 2004c). The application for the cemetery project has not yet been submitted for review (LA County 2003). Consequently, cumulative construction impacts would not occur to aesthetic resources, as the project would not incrementally add to the potential impacts from the related projects.

Implementation of the proposed project would not substantially change the aesthetic character of the area, which includes the existing adjacent California Aqueduct and the Tehachapi Afterbay. The addition of the East Afterbay would increase the area covered by aqueduct-related structures and would have a similar visual character, thereby blending with the existing structures located to the west and south of the proposed project site. The cumulative visual change associated with planned projects in the vicinity would be substantial, especially considering the significant visual changes associated with the development of the Centennial Project. However, the proposed project's contribution to these changes is minor (see Section 5.5.2). The proposed project would not cause any significant long-term visual impacts and its incremental effect on visual conditions in the area would not be cumulatively considerable.

In order to minimize the impacts of nighttime lighting on current and future residences, the proposed project design incorporates mitigation measure AES-1, as discussed in Section 5.5 (below). While future cumulative impacts regarding nighttime lighting would occur from both the proposed project and the proposed Centennial Project, the mitigation incorporated into the design of the East Afterbay would minimize the proposed project's contribution to cumulative nighttime lighting impacts to a less-than-significant level.

**Agriculture.** According to the California Department of Conservation's (CDOC) Farmland Mapping and Monitoring Program (FMMP), the proposed project site, spoil area, and potential supplemental spoil area are classified as Grazing Lands (G). The proposed project would permanently convert a small area (approximately 198.5 acres, and up to 215.5 acres including the potential supplemental spoil area) zoned for agricultural uses to a non-agricultural use. This conversion, however, would not represent a substantial loss of agricultural resources, as the proposed project site is not used for cultivation of crops and is not located on lands classified as Prime Farmlands, Unique Farmlands, or Farmlands of Statewide Importance<sup>1</sup> (CDOC 2004). Other proposed projects in the vicinity, most notably the proposed Centennial Project, could contribute to a

---

<sup>1</sup> The CDOC established the FMMP in 1982. The CDOC updates soil mapping every two years using infra-red aerial photos provided by NASA at a scale of 1:130,000; based on these maps, land is evaluated to determine its farmland designation. The CDOC has a minimum mapping unit of 10 acres, with smaller than 10-acre parcels being absorbed into the surrounding classifications. Prime Farmland (P) is defined as irrigated land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Farmland of Statewide Importance (S) is defined as Irrigated land similar to Prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland. Both "P" and "S" Lands must have been used for production of irrigated crops at some time during the four years prior to the mapping date. Unique Farmland (U) is defined as lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

substantial loss of grazing and agricultural lands by converting land in agricultural use to non-agricultural uses. Both the proposed project and the Centennial Project would be located on Tejon Ranch property, which historically used the area for rangeland activities and resource extraction. Unlike the Centennial Project, however, the proposed project would not induce or facilitate future growth that would lead to the conversion of additional farmland to non-agricultural use. The East Afterbay has been designed to increase operational flexibility and would not increase water supplies. Consequently, the proposed project would not contribute to cumulative impacts on active farmland, nor would it induce growth that may cause future impacts to active farmland (see Section 5.1 – Growth-Inducing Impacts).

**Air Quality.** Essentially all of the air quality impacts associated with the East Afterbay would occur during the construction phase and would be short-term in nature. Other projects being constructed or operated in close proximity to the proposed project could contribute to cumulative air quality impacts on nearby receptors during construction. Additionally, projects that contribute emissions within the same air basin could cause cumulatively significant air quality impacts within the region.

The Tehachapi East Afterbay would be located in the Mojave District Air Basin (MDAB). Other projects identified within the MDAB include the Centennial Project, the National Cement Company Fuel Augmentation Project, and the Racetrack and Caretaker Structure listed in Table 5-1. Emissions from these projects would only have the potential to cause cumulatively significant impacts if they were constructed concurrently with the proposed project. Construction of the Centennial Project is expected to occur after the completion of the East Afterbay and, therefore, the construction emissions of the two projects could not combine to cause cumulative air quality impacts. The National Cement Company Fuel Augmentation Project involves little construction and would likely be complete by the end of 2004; and operation of this project would result in negligible additional, perhaps even decreased, emissions. The Racetrack and Caretaker Structure would also be constructed within the MDAB; however, it is unknown when construction would occur.

Construction of the East and West Tejon Industrial Project will result in substantial air quality impacts. However, this project is located north of the Tehachapi Mountains in the San Joaquin Valley Air Basin. As such, it is physically separated from the proposed project and would not contribute to cumulative impacts.

During operation of the East Afterbay, emissions would only be generated by activities associated with minor periodic maintenance and repairs. The project's operation and maintenance emissions would not be significant and would not be cumulatively considerable. Therefore, cumulative air quality impacts as a result of project operation would be less than significant.

**Biological Resources.** Cumulative impacts to biological resources could affect both vegetation and wildlife. Cumulative impacts include impacts from existing projects or from projects that are planned to be built during the life of the proposed project. Projects were considered in the cumulative analysis if their potential impacts, together with the impacts of the proposed project, would be additive and would compound or increase the assessed impacts to vegetation or wildlife.

The projects listed in Table 5-1 would impact flora and fauna in primarily the same manner as the proposed project insofar as they occupy previously undeveloped land surfaces; contribute to indirect impacts resulting from increased noise, night lighting, and human presence; and potentially alter existing surface and subsurface

hydrology. These and other sources of impact have the overall effect of fragmenting habitat, especially where drainage corridors are interrupted, and degrading the quality of habitat in areas adjacent to constructed projects. These effects occur on a regional scale, which makes it difficult to quantify a cause and effect relationship. However, including the projects identified in Table 5-1 and the proposed project, at least 13,100 acres of habitat would be irreversibly lost within a 15-mile distance. The cumulative effect due to degradation and fragmentation of habitat associated with these projects would be substantial. For example, if one considers the edge effect that large projects such as the Centennial Project would have on adjacent habitat or the fragmentation caused by new roads or facilities placed along wildlife corridors, it is very likely that wildlife populations would be reduced or isolated. Mitigation measures have been developed and incorporated into the Tehachapi East Afterbay Project to reduce the proposed project's significant impacts to biological resources and minimize the project's contribution to cumulative impacts. With the exception of significant unavoidable impacts to the coast horned lizard, all other significant impacts to biological resources would be reduced to a less-than significant level with implementation of the proposed mitigation measures and the proposed project's incremental effects on wildlife and vegetation in the area would not be cumulatively considerable. Refer to Section 3.2 for a description of biological resource impacts and mitigation measures.

**Cultural Resources.** Cumulative impacts from existing and proposed projects may occur in areas containing highly sensitive prehistoric or historic cultural resources. According to previous and current resource surveys, no cultural resources have been recorded in the proposed project area. While archaeological research suggests that the surrounding region has been continuously occupied since the Paleoindian period (prior to 10,000 years ago), no cultural resources are known to exist at the proposed project site. Consequently, the proposed project would not contribute to cumulative cultural resources impacts.

**Geology and Soils.** Potential cumulative geologic impacts typically are limited to the loss of unique geologic features, substantial alterations to the local topography, or triggering or accelerating slope failures from the proposed project and one or more future projects. Geologic impacts associated with the proposed project would generally be related to seismic activity and would not be cumulative.

Construction of the East Afterbay potentially would contribute to erosion and potentially would contribute to or result in landslides, lateral spreading, subsidence, liquefaction, or collapse. However, these impacts would be minimized with the incorporation of mitigation measures GEO-1 through GEO-5 provided in Section 5.5.5 below. Because the construction of the proposed project would not result in the loss of any unique geologic features or mineral/energy resources, and would not substantially alter topography or contribute to slope failures, the proposed project would not contribute to cumulative geologic impacts.

**Hazards and Hazardous Materials.** The potential for impacts from the use of hazardous materials would be attributed to both the construction and operation of the proposed project. The East Afterbay would require the use of petroleum hydrocarbons and their derivatives (e.g., gasoline, oils, lubricants, and solvents) in sufficient volume to support 17 months of construction activity. These materials would generally be used with excavation equipment, generators, and other construction equipment and would be contained within vessels engineered for safe storage. The quantity of hazardous materials used would not pose public health and safety hazards.

Operation of the Tehachapi East Afterbay would require the use of LPG for the emergency generator, and aquatic pesticides for maintaining the water quality within the afterbay. As discussed in Section 5.2,



Significant Irreversible Environmental Changes, the storage and use of LPG would be carried out per the environmental commitments in Section 2.5 and existing regulations and BMPs. The application of aquatic pesticides is carried out under the conditions set forth in a general statewide NPDES permit that covers all SWP facilities, which will be amended to include the Tehachapi East Afterbay. Additionally, mitigation measure BIO-1 (see Section 3.2.4.2) states that the use of herbicides and pesticides for maintenance purposes shall be done in a manner consistent with USEPA label instructions, other appropriate pollution prevention precautions, and the NPDES permit for the application of aquatic pesticides.

Environmental impacts associated with hazards and hazardous materials for the construction and operation of the proposed project would be less than significant (see Section 5.5.6 below) and not cumulatively considerable. Consequently, the proposed project would not contribute significantly to cumulative hazardous impacts.

**Hydrology and Water Quality.** Cumulative hydrological impacts result from construction activities and the increase of impervious surfaces, which contribute to increased runoff. The proposed project would redirect flows into the existing drainage channel west of the proposed reservoir, which would result in a relatively minor alteration of the local drainage pattern. However, it would not increase runoff or flooding in the area. In addition, implementation of the proposed project's Stormwater Pollution Prevention Plan (SWPPP) would minimize construction-related water quality impacts. Therefore, the proposed project would not contribute to cumulative hydrology and water quality impacts.

**Land Use and Recreation.** Cumulative adverse land use and recreation impacts could occur during construction if the construction of other planned projects in the area occurred simultaneously and in close proximity to the construction of the proposed project. Such impacts are primarily related to the generation of noise and dust, but also can pertain to temporarily blocked access or other interference with normal use of a property. The Centennial Project is the only planned project that has the potential to create cumulative impacts in conjunction with the development of the East Afterbay, as the other related projects identified in Table 5-1 are 13 miles or more from the proposed project site. Construction of the Centennial Project is not expected to begin prior to the completion of the proposed project. Therefore, the proposed project would result in no cumulative construction impacts on land use and recreation.

Over the long-term, land use changes in the vicinity would be substantial, especially considering the large amount of land that would be converted to urban uses with the development of the proposed Centennial Project. The Centennial Project would also create a need for new recreational facilities to serve future residents and the needed facilities would be constructed as part of that project, if approved. The land uses changes associated with the East Afterbay project are minor and would not result in any significant land use or recreation impacts (see Section 5.5.8 below). The East Afterbay project's incremental effect on land use and recreation in the area would not be cumulatively considerable.

**Mineral Resources.** No cumulative impacts to mineral resources would occur as a result of the proposed project. The East Afterbay would not be located in an area with a high likelihood of containing substantial mineral deposits. Consequently, construction or operation of the proposed project, in conjunction with the related projects identified in Table 5-1, would not contribute to cumulative mineral resource impacts.

**Noise.** Cumulative noise impacts would occur if construction or operation and maintenance of existing or planned projects occurred simultaneously with the proposed project. There are no planned local projects that are expected to begin construction prior to the completion of the proposed project. Noise sources associated with the construction of the East Afterbay would include heavy-duty diesel and gasoline-powered construction equipment, trucks delivering material and equipment, and vehicles used by workers commuting to and from the job site. Mitigation measures have been incorporated into the proposed project design to minimize construction and maintenance-related noise impacts (see Section 5.5.10 below).

Noise sources associated with the operation of the East Afterbay include water flow, periodic weir adjustments, pumping activities, and routine daily surveillance of the area. These sources would not contribute substantially to the overall noise of the existing afterbay and, consequently, less-than-significant cumulative noise impacts would occur.

**Population and Housing.** Potential cumulative population and housing impacts can result from induced population growth, displacement of existing housing, or displacement of a segment of the population. The proposed project would not increase water supplies or deliveries, nor would it develop housing or any related services (see Section 5.1 – Growth-Inducing Impacts). As a result, construction and operation of the East Afterbay project would not contribute to population growth. The proposed project would not displace existing housing, nor would it require the displacement of any segment of the population. Consequently, the East Afterbay project, in conjunction with the related projects identified in Table 5-1, would not cumulatively impact population and housing.

**Public Service and Utilities.** The proposed project would have very little potential for significant cumulative impacts related to public services or utilities. If another construction project were to occur simultaneously with the construction of the East Afterbay project, there may be an increased demand on fire and police services, in addition to existing landfills. However, no other local projects are expected to begin construction prior to the completion of the East Afterbay project. The proposed project would not induce growth, nor require the expansion of public services or utilities. Consequently, no cumulative impacts would occur.

**Transportation and Traffic.** Because traffic impacts from the proposed project would occur only during construction, there is very little potential for the proposed project to make a significant contribution to cumulative increases in local and regional traffic congestion. However, if other construction projects occur in the immediate vicinity of the project area during the construction of the East Afterbay project, there is a potential for temporary combined traffic and circulation effects. Both construction employees and haul trucks would be commuting to the proposed project site from either Bakersfield or Burbank. Two local projects that may contribute to cumulative traffic impacts would include the planned Tejon Industrial Project East and West and construction projects through the California Department of Transportation (Caltrans). Traffic control plans for each project would need to be coordinated if construction were to occur simultaneously, thereby reducing cumulative impacts to less-than-significant levels. In order to further reduce traffic impacts, mitigation measures listed in Section 5.5.14 have been incorporated into the proposed project.

## **5.4 Significant Unavoidable Environmental Impacts**

Construction of the Tehachapi East Afterbay would produce significant air quality emissions. Both daily and annual construction emissions from the proposed project would exceed the emissions thresholds, as defined by the Antelope Valley Air Quality Management District. Application of mitigation measures AQ-1 through AQ-7, provided in Section 3.1, would reduce the impacts due to construction of the Tehachapi East Afterbay Project; however, impacts would still be significant for NO<sub>x</sub> and PM<sub>10</sub>. Therefore, the proposed project would result in a significant unavoidable environmental impact to air quality during construction. The project would also likely result in a significant impact to the coast horned lizard, a California species of special concern and a federal species of concern. Impacts to species of concern should be managed in such a way as to avoid increasing the probability that the existence of the species will become threatened or endangered in the future. Because it is unlikely that mitigation measures BIO-1 to BIO-13 described in Section 3.2 will be successful in achieving this goal, this has been identified as a significant unavoidable impact. A Statement of Overriding Considerations will be required to proceed with the proposed project.

## **5.5 Effects Not Found to be Significant**

### **5.5.1 Introduction**

In accordance with Section 15128 of the State CEQA Guidelines, this section provides a summary of potential impacts that the Lead Agency determined did not have the potential to be significant and, therefore, are not discussed in detail in this EIR. The evaluation of potential impact significance was originally conducted in the Initial Study prepared for the previous Tehachapi Second Afterbay project, which was subsequently abandoned in favor of the proposed Tehachapi East Afterbay Project. This section has been adapted from that previous Initial Study in order to incorporate various mitigation measures that had been formulated to reduce potential impacts of the previous Tehachapi Second Afterbay project. As appropriate, mitigation measures originally contained in that Initial Study have been incorporated into the proposed project as described below.

With the mitigation measures incorporated herein, the CDWR determined that the proposed project would not have the potential to result in significant impacts related to the following issue areas: Aesthetics, Agricultural Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation and Traffic, and Utilities and Service Systems. The CDWR determined that impacts related to these issue areas would not need to be evaluated in the EIR because either: (1) there was substantial evidence demonstrating that impacts would not be significant; or (2) standard mitigation approaches were available to address potentially significant impacts and it was clear that the mitigation would reduce the impacts to less-than-significant levels. Discussions of impacts related to each of these issue areas are provided below.

### **5.5.2 Aesthetics**

The Tehachapi East Afterbay Project would be located east of the bifurcation of the East Branch and West Branch of the California Aqueduct, on undeveloped land in the Tehachapi Mountain foothills, in the very southern portion of Kern County, within the boundaries of Tejon Ranch. To the north of the project site are

the foothills of Tehachapi Mountain range, which have a high scenic value (particularly during periods of the year when the native wildflowers bloom). The East Branch of the California Aqueduct is located immediately southwest and south of the proposed project site, dominating the proximate visual setting. To the west, the visual setting is dominated by the existing Tehachapi Afterbay (Pool 42) and by the West Branch of the California Aqueduct, which is located approximately one mile from the proposed project site. Low hills are located to the southwest, past Pool 42 and the West Branch, which offer some topographical relief. The Alamo Powerplant dominates the visual setting south of the proposed project site, and agricultural development dominates the visual character south of the Alamo Powerplant to State Route 138. The topography to the south is generally flat. Relatively flat rangeland dominates the visual setting immediately to the east of the proposed project site, while the Tehachapi Foothills, located to the northeast, provide high visual contrast.

In general, the proposed project would have very similar aesthetic characteristics as the existing SWP facilities, and the scenic quality of the area would remain relatively unchanged as a result of the proposed project. The Tehachapi East Afterbay would not adversely affect a scenic vista, nor would it substantially degrade the existing visual character of the proposed site and its surroundings. In addition, the proposed project would not disturb any highly valuable or unique scenic resources, including scenic highways, nor would it obstruct the view of any scenic resources.

Overall construction of the proposed project would create a short-term disturbance to the existing visual setting. Construction equipment and activities would temporarily disturb the proposed site, create dust, and increase nighttime lighting and traffic, which would diminish the scenic quality and scenic vista of the area. However, these impacts would be temporary in nature and they would not disturb or damage any unique or highly valuable scenic resources.

Operation of the East Afterbay would require exterior lighting during nighttime hours, which would be placed at the outlet structure control building. Currently, due to the remoteness of the proposed project site, impacts to sensitive receptors would be less than significant. However, the use of exterior lighting during nighttime hours may pose a potential impact to future residents in the nearby area (see Section 5.3 – Cumulative Impacts, regarding future residential projects). To reduce potential impacts on current and future residents to less-than-significant levels, the following mitigation measure is recommended:

**AES-1**      The construction contractor shall install exterior lighting with shielding sufficient to reduce glare to no more than five feet from the subject property line. Security lighting shall have low wattage and prismatic glass coverings to minimize any potential light and glare impacts.

### **5.5.3 Agricultural Resources**

According to the CDOC's FMMP, the proposed project site, spoil area, and potential supplemental spoil area are classified as Grazing Lands (G). The proposed project would permanently convert a small area (approximately 198.5 acres, and up to 215.5 acres including the potential supplemental spoil area) zoned for agricultural uses to a non-agricultural use. This conversion, however, would not represent a substantial loss of agricultural resources, as the proposed project site is not in cultivation and is not located on lands classified as Prime Farmlands, Unique Farmlands, or Farmlands of Statewide Importance (CDOC 2004). Therefore, less-than-significant impacts to agricultural resources would occur.

Some of the lands proposed for acquisition for the proposed project are currently under a Williamson Act contract, which is a contract between governments and private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In exchange, landowners receive reduced property tax assessments, which are much lower than normal, as they are based upon farming and open space uses as opposed to full market value. The Williamson Act (Government Code Section 51291) includes provisions for an agency to notify the Director of the Department of Conservation of the possible acquisition of land enrolled in a Williamson Act contract for a public improvement. The Williamson Act contract, which covers portions of the proposed project site, was established in February 1968 between Kern County and the Tejon Ranch Company (Tejon 2004). The existing conservation contract includes 2,866.58 acres in Kern County (Agricultural Preserve number 19) (CDWR 2004c), of which the proposed project would permanently affect up to 198.5 acres, and potentially more if the supplemental spoil area were to be used. The Williamson Act allows acquisition of contract land for public improvements (subject to notification) and the acquisition of such land for the proposed project would not conflict with the Act.

#### **5.5.4 Cultural Resources**

As discussed in the archaeological survey report prepared by Statistical Research, Inc. (SRI 2004, see Appendix D), the proposed project area is within the ethnographic territory of the Kitanemuk, a small group that occupied the Tehachapi Mountains at the southern end of the San Joaquin Valley. Little is known about this group, but based on available data the subsistence system of the Kitanemuk was similar to the Yokuts and inland Chumash (Blackburn and Bean 1978). The Kitanemuk were hunters and gatherers, and acorns served as their primary subsistence resource. Pinyon pine nuts, yucca, elderberries, and mesquite beans were also available for consumption. The Kitanemuk were taken to Mission San Fernando in the late 1700s and early 1800s. Following mission secularization in 1834, surviving Kitanemuk joined Tataviam, Vanyume, and Inland Chumash groups in the Tejon Ranch area. Their descendants are now organized as the San Fernando Band of Mission Indians.

Archaeological research in the region suggests that this area has been continuously occupied since the Paleoindian period (prior to 10,000 years ago). One lanceolate fluted point, identified as a Clovis point, was found in the foothills of the Tehachapi Mountains (Glennan 1971) suggesting that Paleoindian groups used the area. Little evidence of occupation of the Tehachapi Mountains region prior to 3,000 years ago exists. Based on limited research, it appears that occupation in the region increased in the later prehistoric periods during the past 3,000 years. Schiffman and Garfinkel (1981) proposed that the increase in occupation in later periods is linked to climatic change.

During the Historic period, two areas were granted by Mexico to claimants (Cowan 1977). Liebre, encompassing 48,800 acres, was granted to Jose M. Flores in 1846. Jose Antonio Aguirre and Ignacio del Valle were granted 97,617 acres in 1843 on what is now known as Tejon Ranch.

Historical resources, including cultural and archeological resources, are not expected to sub-surface as a result of the proposed project. According to a search of the cultural resources files at the Southern San Joaquin Valley Information Center, California State University, Bakersfield, and the South Central Coastal Information Center, California State University, Fullerton, no cultural resources have been recorded in the proposed

project area. There have been two previous cultural resources studies (KE-1077, KE-1793) in Kern County, within a one-mile radius of the project area. One archaeological site (CA-KER-987), a bedrock mortar site, was recorded in 1979 (Schiffman and Lewis 1979), but has not been field checked or updated since that time. This site is located roughly one mile north of the proposed project site.

In addition, SRI conducted a field survey of the proposed project site between July 7 and July 9, 2004, and found no cultural resources in the area. A total of 291 acres were surveyed with the use of handheld GeoExplorer III global positioning systems (GPS) units. The surveying team covered the project area by walking linear transects at intervals of approximately 15 meters. Because no cultural resources were found during the survey, no monitoring was recommended during construction (SRI 2004). Additionally, because the area has been highly disturbed by agricultural and ranching activities, and activities related to the construction and maintenance of the California Aqueduct, it is unlikely that subsurface cultural deposits (i.e., historical, unique archaeological, and/or paleontological resources) are present. A field survey of the potential supplemental spoil pile is currently underway. It is assumed that the results would be similar to those found for the proposed project area. If, however, cultural resources are found within the supplemental spoil pile area, the CDWR would conduct additional CEQA review to analyze the impacts and provide mitigation measures if applicable.

The CDWR has committed to a plan in the event that archeological or paleontological resources are discovered, or that human remains are unearthed (see Section 2.5 – Environmental Commitments). Therefore, no significant impacts on cultural resources would occur as a result of the construction and operation of the Tehachapi East Afterbay Project.

### **5.5.5 Geology and Soils**

The proposed project site would be located within the western end of the Antelope Valley, an alluvial valley bounded on the southwest by the San Gabriel Mountains and to the northwest by the Tehachapi Mountains. Two geologic units have been identified in the immediate vicinity of the proposed project, Quaternary Alluvium (Qal) and Quaternary Terrace Deposits (Qt) (CDWR 2004b). Quaternary Alluvium (Qal) in the proposed project area consists predominantly of silty sand with minor amounts of poorly graded sand and poorly graded sand with clay. The Terrace Deposits (Qt) in the proposed project area consist predominantly of light to dark yellowish brown poorly graded sand and silty sand. Minor interbeds of andy clay and clayey sand are also present.

The proposed East Afterbay, spoil pile, and potential supplemental spoil pile would be founded entirely on and in Quaternary Terrace Deposits. Quaternary Alluvium is present in the existing drainage channel located immediately west of the proposed East Afterbay; however, it is only approximately ten to 15 feet thick (CDWR 2004b). The proposed inlet and outlet channels, as well as a concrete drainage culvert, would be built within the Quaternary Alluvium found in the drainage channel. Approximately 100 feet of rock slope protection would be added to the drainage channel to avoid erosion and undercutting of the culvert.

The proposed project is located in a tectonically active geologic zone. A comprehensive fault study was conducted as part of the *Tehachapi Afterbay Enlargement Feasibility Study Report* (CDWR 2002) and an additional study focused on the Piñon Hill fault was performed as part of the *Tehachapi Second Afterbay*,

*Faulting and Seismicity Study Report* (CDWR 2003f). Two major fault systems were identified in the vicinity of the proposed project. These are the San Andreas Fault zone, located approximately four miles to the southwest, and the Garlock Fault zone, located approximately 5.5 miles northwest of the proposed project site (CDWR 2002). The San Andreas fault is the largest fault near the proposed project site and is capable of a maximum moment magnitude of 8.0 (CDWR 2002). Other active faults near the project area include “Strand D” of the Piñon Hill fault and the Oso Canyon fault. As discussed in the *Tehachapi Second Afterbay – Northeast Alternative Site; Preliminary Results of Phase I Geologic Exploration Program* (CDWR 2004b), which was completed specifically for the proposed project site, no faults are believed to pass through the proposed reservoir site. “Strand D” of the Piñon Hill fault does not trend to the afterbay. “Strand D” crosses the existing drainage channel about 500 feet north of the inlet channel and trends parallel to the inlet channel some 100 to 400 feet to the northwest. Design measures (see Section 2.4 - Project Description) incorporated into the Tehachapi East Afterbay would avoid significant impacts associated with seismic groundshaking.

Because the Tehachapi East Afterbay would be designed to withstand a large magnitude earthquake, a catastrophic release of water from the afterbay under such an earthquake load would not occur (CDWR 2003b) or result in exposure of persons or property to loss, injury or death. In addition, oscillations caused by an earthquake would not likely produce a wave large enough to cause any damages to shoreline facilities (CDWR 2002) or to the reservoir itself due to the small size and shallow depth of the proposed reservoir.

Seismic-related landslides are also not expected to occur since the topographic expression of the proposed project site is not conducive to these types of failures. If a seismic-related landslide were to occur, the size of the failure would likely be small. Therefore, impacts due to seismic-related landslides would be less than significant.

Soils at the proposed project site were also investigated to determine if they exhibited expansive characteristics. No expansive soils were found at the proposed project site (CDWR 2003b). Therefore, risk associated with the project being located on expansive soil would be less than significant.

The potential for liquefaction caused by a major earthquake could be a potential concern in the proposed project area. However, the majority of the Quaternary Terrace (Qt) soils at the proposed project site are not considered to be liquefiable and the Quaternary Alluvium (Qal) would be removed and recompacted before being replaced. As part of the project design features, the CDWR would line the reservoir with hydraulic asphalt concrete to reduce seepage losses. Side slopes of 4:1 would be lined with a combination of compacted in-situ or locally borrowed soils and overlain with hydraulic asphalt concrete. Therefore, impacts due to seismic-related ground failure, specifically liquefaction, would be reduced to less-than-significant levels.

The proposed project could potentially result in substantial erosion and loss of topsoil due to the high erosion potential of the Terrace deposits (Qt) and Quaternary alluvium (Qal) geologic units found within and nearby the proposed project site. To prevent erosion, as mentioned above, the proposed reservoir would have side slopes of 4:1 and would be lined with a combination of compacted in-situ or locally borrowed soils and overlain with hydraulic asphalt concrete. The embankment of the spoil pile would also have a maximum height of approximately 35 feet (crest elevation of 3,135 feet) with varying slopes (generally 4:1). Additionally, local drainage improvements within the proposed project site would include approximately 100 feet of rock slope protection to avoid erosion and undercutting of the culvert. Erosion protection, including rock slope protection

and filter fabric, grading, and revegetation would occur for all disturbed ground within the proposed project area.

Although these project designs would minimize the impacts on erosion and loss of topsoil, additional measures would be needed to further reduce erosion impacts. Implementation of mitigation measure AQ-1 (see Section 3.1), as well as GEO-1 through GEO-5 presented below, would reduce potential impacts from erosion to less-than-significant levels.

- GEO-1** To reduce erosion at the project site, temporary and permanent cut and fill slopes shall be planted with fast growing native vegetative cover.
- GEO-2** To reduce erosion at the project site, slopes exposing weak or loose materials shall be protected with jute netting or similar material until vegetation becomes established.
- GEO-3** During construction, the contractor shall ensure that the length of time that soils are exposed is minimized to the maximum extent feasible to reduce potential erosion impacts.
- GEO-4** During site preparation activities (i.e., site clearing and leveling), the contractor shall apply water to cleared and exposed soil areas, as necessary, to prevent excessive wind erosion.
- GEO-5** To improve slope stability, the following measures shall be implemented:
- The top of all permanent and temporary cuts shall be rounded to blend with the natural topography.
  - Slope stabilization measures such as flattening, removal of loose soil, or buttressing with compacted fill, are recommended depending on actual site conditions.
  - Engineered (compacted and sloped to drain) spoil fills shall have slopes no steeper than 2:1 (horizontal to vertical). Benching may be required on spoil fill slopes higher than 30 feet depending on the type of material wasted.
  - Scaling of loose material shall be performed as excavation activities proceed.
  - During construction, an on-site geologist or engineer shall observe the excavations and map the exposed soil conditions, and check the adequacy of the foundation and depth and extent of excavations for construction of fills and the stability of cut slopes.
  - If there are changes in the concept or design of the project, an engineer shall review those changes to check that the conclusions and recommendations of the various geologic studies performed for the project area remain valid.
  - Prior to grading, an engineer shall review the final plans and specifications for conformance with the intent of the recommendations provided in the various geologic studies performed for the project area.

Therefore, the proposed Tehachapi East Afterbay Project would have less-than-significant impacts, with the incorporation of mitigation measures AQ-1 and GEO-1 through GEO-5, on the geology and soils within the proposed project area.

### **5.5.6 Hazards and Hazardous Materials**

The Tehachapi East Afterbay project area includes land that is generally undeveloped, with the exception of the California Aqueduct. Existing and past land use activities are used as potential indicators of hazardous material storage and use. For example, many industrial sites, historic and current, are known or suspected to



have soil or groundwater contamination by hazardous substances. Properties devoted to oil production, including oil fields and processing facilities, are commonly known or suspected to have environmental contamination from petroleum hydrocarbons, heavy metals, and chlorinated solvents. Other hazardous materials sources include leaking underground tanks in commercial and industrial areas, surface runoff from contaminated sites and migration of contaminated groundwater plumes to conduit installation areas, and pesticides and herbicides in the soil of past agricultural lands. In addition to contaminants found in soils, groundwater is subject to contamination associated with underground storage tanks and other sources.

Environmental Data Resources, Inc., (EDR) provided a Radius Map Report for the project area, based on a search of over 70 databases, which identified sites with real or potential environmental issues within approximately 1.0 mile of the study area. The data search indicated that no hazardous, toxic, and/or radioactive waste (HTRW) sites are located within approximately a one-mile radius of the project area (EDR 2003). However, several sites containing potentially hazardous materials were identified in the nearby communities of Gorman, Lebec, and Rosamond.

The proposed project would not require long-term storage, treatment, disposal, or transport of substantial quantities of hazardous materials; however, small quantities of hazardous materials would be stored, used, and handled during construction and operation. These relatively small quantities would not be considered to pose public health and safety hazards through release of emissions or risk of upset. The hazardous materials that would be used during construction are small volumes of petroleum hydrocarbons and their derivatives (e.g., gasoline, oils, lubricants, and solvents) required to operate the construction equipment. These materials would generally be used with excavation equipment, generators, and other construction equipment and would be contained within vessels engineered for safe storage. Storage of substantial quantities of these materials at the construction site is not anticipated. Construction vehicles on-site may require routine or emergency maintenance that could result in the release of oil, diesel fuel, transmission fluid or other materials, but the materials would not be used in quantities or stored in a manner that would pose a significant hazard to the public or the workers themselves. Additionally, CDWR would apply BMPs if an accidental release were to occur (see Section 2.5 – Environmental Commitments). Therefore, any impacts resulting from construction of the proposed project would be less than significant.

Construction staging areas are planned to be located within the project area, thereby minimizing interference with or adoption of any emergency response or evacuation plans. Additionally, standard CDWR contract specifications require construction contractors to develop and implement a Fire Prevention Plan. Furthermore, no permanent on-site operation personnel would be required as a result of the proposed project. Thus, the proposed project would not generate any hazardous materials and the associated impacts due to construction would be less than significant.

Intermittent activities such as the operation of the emergency generator, which would require the storage and use of LPG, and the application of aquatic pesticides, for the maintenance of the water quality within the afterbay, would result in minimal and short-term emissions. During construction and operation, project personnel would follow all institutional controls governing the storage, transportation, use, handling, and disposal of hazardous materials and, therefore, would not pose any adverse effects on nearby receptors such as schools, public airports, and other public facilities. With the implementation of the environmental

commitments and best management practices agreed to by CDWR (Section 2.5), hazards and hazardous material impacts resulting from the proposed project would be less than significant.

### **5.5.7 Hydrology and Water Quality**

The Tehachapi East Afterbay Project would be located on the foothills of the Tehachapi Mountains. Three major washes are located in immediate vicinity of the proposed project site: Oso Canyon, Los Alamos Creek, and Little Sycamore Canyon. Oso Creek, the largest of the three streams, has a drainage area of approximately 20 square miles. It crosses the West Branch of the California Aqueduct at the Oso Siphon and runs west to east, across the proposed project's access roads located approximately 1,000 feet to the southwest of the proposed project site. Los Alamos Creek drainage area covers approximately four square miles and flows west of the Carley V. Porter Tunnel South Portal to the Oso Siphon. Sycamore Creek has a watershed area of 5.5 square miles. The wash drains through an overchute approximately 2,500 feet west of the proposed project site and proceeds south to Oso Creek. While the overall drainage pattern of the area has been previously altered by the construction of the California Aqueduct, the proposed project would not substantially alter existing drainage patterns in the area. A Streambed Alteration Agreement would be obtained for any improvements to the access road that crosses Oso Creek to reduce impacts to local hydrology. Similarly, the proposed project would not cause any erosion or siltation in the area, nor would it increase the rate or amount of surface water runoff from the site. No impacts would occur.

The proposed project would not deplete groundwater supplies or interfere with groundwater recharge. The CDWR Division of Engineering - Project Geology Section performed a Phase 1 geologic exploration in the proposed project site in March 2004 (CDWR 2004b). The geologic exploration consisted of drilling five holes (NE-1, -2, -3, -4, and -5) and excavating six test pits (TP-1, -2, -3, -4, -5, and -6) in the vicinity of the proposed project. Three of the holes (NE-1, -2 and -3) were drilled within the proposed reservoir area to a depth of approximately 100 feet, and two additional holes (NE-4 and NE-5) were drilled immediately west of the proposed reservoir site within the natural drainage channel to a depth to approximately 50 feet. No groundwater was encountered in any of the drill holes or test pit excavations. The ground surface at the two drill holes within the natural drainage channel (NE-4 and NE-5) was dry at the time the holes were drilled. Project Geology conducted supplemental design exploration for the Tehachapi East Afterbay in May and June of 2004. An additional 19 exploration drill holes were drilled. The depth of the drill holes ranged from about 50 to 100 feet. Groundwater was not encountered to a depth of 100 feet below the proposed project site or in the natural north-south drainage channel. Therefore, the proposed project would not alter groundwater supplies or interfere with groundwater recharge. No impacts would occur.

In addition, there would be no change in the quality of the surface water in the California Aqueduct or the nearby streams as a result of the proposed project. Construction at the proposed project site would require a SWPPP to comply with the NPDES regulations, which would reduce construction-related water quality impacts to less-than-significant levels. During operations, SWP water would not be introduced to local streams and would, therefore, not alter their quality. Thus, the proposed project would not violate any water quality standards or waste discharge requirements.

Furthermore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flood, including flooding as a result of levee failure. The proposed site is located adjacent to the East Branch of the California Aqueduct, which is designed to keep flows from a 500-year flooding event from entering the system. Furthermore, no houses or structures are located within a 100-year flood plain, decreasing the potential of exposing people or structures if an accidental spill were to occur. The existing Tehachapi Afterbay would act as an emergency overflow spillway to further reduce the potential for embankment/levee rupture. Therefore, the potential for flooding and exposing people or structures to a significant risk would be less than significant.

### **5.5.8 Land Use Planning**

The proposed project would be located in an unincorporated portion of Kern County, within the boundaries of Tejon Ranch. Most of the proposed project site would be located on land currently owned by the Tejon Ranch Company, which would be purchased by the CDWR for the proposed project. The area of the proposed project has traditionally been used for ranching and resource extraction. Agricultural uses, including crop cultivation and grazing, dominate the area south of the project, across the border of Los Angeles County. A ranch house and accessory structures are located in the vicinity of the project, and the California Aqueduct is located immediately southwest and south of the proposed project site.

Because the proposed project would be constructed and operated by the State and located on land to be purchased by the State, local land use plans, policies, and regulations are not applicable to the proposed project. The County of Kern currently has land use jurisdiction over the property owned by Tejon Ranch, which would be purchased by the State for the proposed project. The Kern County General Plan designates the private property encompassed by the proposed project site, including the proposed spoil and potential supplemental spoil areas as Extensive Agriculture (Kern County 2004b). This designation includes lands for agricultural uses involving large amounts of land for use as livestock grazing, dry land farming and woodlands. Water storage is considered a compatible use. Those portions of the proposed project site currently owned by the State are designated in the Kern County General Plan as State and Federal Lands.

The Kern County Planning Department (Kern County 2003a) designates the area immediately surrounding the proposed project site, including the proposed spoil and potential supplemental spoil areas, as Exclusive Agriculture (A). Under this designation, uses are limited primarily to agriculture uses and other activities compatible with agricultural uses. Waste storage, groundwater recharge facilities and large water systems are all allowed uses under the Exclusive Agriculture designation. The classification of the State-owned property as Exclusive Agriculture is consistent with General Plan Implementation Policy D for Non-jurisdictional Land that state "Classify federal and State lands in a zoning category which is consistent with a Resource Management category" (Kern County 2003b). Therefore, the proposed project would not conflict with any applicable land use plans, policies, or regulations.

A portion of the proposed project site is currently under a Williamson Act contract, which was established in February 1968 between Kern County and the Tejon Ranch Company. The conservation contract includes 2,866.58 acres in Kern County (Agricultural Preserve number 19) (CDWR 2004c), of which the proposed project would permanently affect up to 198.5 acres, and potentially more if the supplemental spoil area were to

be used. The California Department of Conservation and Kern County would be notified regarding the acquisition of land currently under Williamson Act contract. In addition, portions of the proposed project footprint would lie within a Federal Energy Regulatory Commission (FERC) jurisdictional boundary. Authorization to encroach on FERC Project No. 2426 boundaries would be required.

The proposed site and surrounding areas are largely open and undeveloped, and there are no existing communities in the general vicinity. Therefore, the proposed project would not divide an established community. Additionally, the proposed project would not conflict with any applicable habitat or natural community conservation plans, as no such plans cover the proposed project site or the immediate surrounding area. Consequently, no significant impacts would occur to land use and planning as a result of the construction and operation of the proposed project.

### **5.5.9 Mineral Resources**

Mineral Resource Zone 2 is defined as a zone where adequate information indicates that significant mineral deposits are present, or there is likelihood for their presence and development. According to the California Geologic Survey, the proposed project site and surrounding area would not be located in a Mineral Resource Zone 2, as classified by a State Geologist. In addition, the proposed project would not result in the loss of availability of a locally important mineral resource that has been delineated on a land-use planning document. Therefore, the construction and operation of the proposed project would have no impacts on mineral resources nor would it result in the loss of availability of a known mineral resource that would be of value to the region.

### **5.5.10 Noise**

The proposed project would be located within a generally undeveloped area in unincorporated Kern County, immediately north and northeast of the California Aqueduct. The closest residence is located approximately 4,000 feet to the southwest.

The primary noise source in the project area comes from the operation of the existing California Aqueduct, and secondary noise results from natural sources (e.g., wind and birds), airplanes passing overhead, traffic on the streets serving the subject area, and residential noise sources. A land use survey was conducted to identify sensitive receptors in the general vicinity of the proposed project. No sensitive receptors were identified within the immediate project vicinity.

Construction of the proposed project would create noise from on-site and off-site sources. On-site noise during construction would occur primarily from heavy-duty diesel and gasoline-powered construction equipment. Off-site noise would be generated from trucks delivering materials and equipment to the job-site, as well as from vehicles used by workers commuting to and from the job site.

Short-term adverse noise levels would result from the excavation of the reservoir. On-site sources would include the operation of heavy construction equipment during activities such as surface clearing, excavation, and cleanup. Heavy construction equipment would include bulldozers, compactors and graders, among others. During construction, residences in the vicinity of the proposed project area would be exposed to noise generated by various pieces of construction equipment operating within the construction zones. The actual magnitude of construction noise impacts would depend on the type of construction activity, the noise level

generated by various pieces of construction equipment, the duration of the activity, the distance between the activity and the sensitive noise receptors, and whether local barriers and topography provide shielding effects. Considering construction noise impacts would be temporary in nature, and the nearest residence is located approximately 5,000 feet from the proposed project site, noise impacts would be less than significant.

Noise levels from off-site construction-related traffic (delivery trucks, automobiles, and haul trucks) would be potentially adverse. Application of BMPs to minimize travel in residential neighborhoods and to limit travel to certain hours of the day would reduce the impact of construction related noise. To reduce noise impacts due to off-site construction-related traffic, as well as reduce any potential noise impacts due to on-site equipment that would operate up to 24 hours per day, to a less-than-significant level, mitigation measure AQ-2 (see Section 3.1) and the following mitigation measures would be implemented:

- NOI-1** CDWR or its construction contractor shall limit off-site trucking activities (e.g., deliveries, export of materials, etc.) to the hours of 6:00 a.m. to 10:00 p.m. to minimize impacts to nearby residences.
- NOI-2** In the event of complaints by nearby residents due to nighttime construction activities, the construction contractor shall monitor noise levels. Noise shall be measured at the property line of nearby residential uses. In the event that construction noise exceeds the applicable limits specified in the Noise Element of the Kern County General Plan (e.g.,  $L_{50}$  [night] 40 dBA for rural residential), the responsible construction activity shall cease until feasible measures, such as temporary sound walls, are implemented to reduce nighttime noise levels. Nighttime noise thresholds shall be included in the construction contractor's contract with CDWR.
- NOI-3** To the extent feasible, the construction contractor shall locate, store, and maintain portable and stationary equipment as far as possible from nearby residents.

In general, operation of the proposed project would not generate a substantial amount of noise. Noise sources from normal operations of the Tehachapi East Afterbay would include routine daily surveillance of the area by water operations personnel from the CDWR's Southern Field Division. However, intermittent maintenance activities, such as regular civil maintenance and preventive maintenance, may require the use of large construction-related equipment. Implementation of mitigation measures AQ-2 and NOI-1 through NOI-3 for those intermittent maintenance activities involving large construction-related equipment would reduce operational noise impacts to less-than-significant levels.

### **5.5.11 Population and Housing**

The Tehachapi East Afterbay would be located in an undeveloped, unincorporated area of Kern County, with no existing clusters of residential development nearby. The closest large residential and/or commercial areas are in the Cities of Lancaster, Santa Clarita, and Bakersfield. Some housing and hotel/motel units are located to the northwest in the towns of Gorman and Lebec.

As described in Section 2.2, the purpose of the proposed project is to provide additional storage capacity to allow the SWP to pump water during periods of low energy cost, and increase the operational flexibility of the California Aqueduct. The project would not increase water supplies or deliveries and, therefore, it would not

contribute to population growth during construction or operation. During construction of the project, a portion of the construction workforce may choose to temporarily relocate to the project area. However, adequate vacant housing units or temporary living quarters (hotels, motels, etc.) are available to accommodate the workers. Additionally, the proposed project would not result in or include the construction or demolition of housing units, and would not require the displacement of any housing units. Therefore, the proposed project would not contribute to population growth or displace a substantial number of existing residences as a result of project construction or operation. No impacts to population and housing would occur.

### **5.5.12 Public Services**

The proposed project would be located in an unincorporated area in southern portion of Kern County. As such, public services to the project area would be provided by the County. Public services include fire protection, police service, schools, parks, and hospitals, among others.

Fire protection in the area is provided by the Kern County Fire Department. The Battalion serving the proposed project site consists of seven fire stations that cover the area from the Central Valley on the Battalion's west side, the Tehachapi Mountains in the center, and the Mojave Desert on the Battalion's east side. A joint Kern County/Bakersfield City dispatching facility provides dispatch and emergency communications for the unincorporated Kern County area. Due to the proximity of the project to the county line, the Los Angeles County Fire Department may also help provide protection. During construction, fire protection services could be required at the project site in the event of an accident or fire. However, the likelihood of an incident requiring such a response would be low and the Kern County Fire Department is prepared to respond to such emergency needs in unincorporated portions of the County.

Police service in the area is provided by the Kern County Sheriff's Department, which covers the unincorporated sections of Kern County. The proposed project site would be located in the South Area Substation Division of the Kern County Sheriff's Department. The California Highway Patrol also provides traffic patrol along Highway 138 and other unincorporated portions of the County. As part of the proposed project's security features, perimeter fencing would be installed around the reservoir and inlet/outlet structures and would tie into the existing fence at Check 42. Fencing would also be installed around the stilling basin. Signs, as well as area lighting near the control building, would also be installed. It is possible that vandalism or theft could occur at the project site and these issues would be reported to the Sheriff's Department. Any such demands on police services are unlikely and expected to be minor.

No schools, hospitals, or parks are located within the immediate vicinity of the proposed project site. The nearest schools are located in the community of Gorman, and the closest hospital facilities are located in the Cities of Lancaster and Santa Clarita. The closest parks are located in Gorman, Lancaster, and Santa Clarita. Therefore, no schools, hospital or parks would be directly affected by the proposed project. If any construction personnel with children were to relocate to the project vicinity during the construction period, a minor and temporary demand for local schools and parks could result. However, only a small percentage of the project's construction workers would potentially relocate to the area during construction. Therefore, the proposed project would not substantially increase demands on either schools or parks in the area. Thus, construction impacts to public services would be less than significant.

The long-term effects of the proposed project would not cause a substantial increase in population or migration into the area. Therefore, operation of the proposed project would not result in substantial stress on the service capacities of the Kern County Fire Department or Sheriff's Department, and would not increase the need for schools, parks, or other public facilities in the area. Thus, operational impacts to public services would be less than significant.

### **5.5.13 Recreation**

Due to the isolated location of the proposed project, no public recreational facilities exist immediately adjacent to or near the proposed project site. The nearest recreational areas to the proposed project site are Quail Lake, located approximately 4.5 miles to the southeast, Los Padres National Forest, located approximately seven miles to the southwest, and Angeles National Forest, located approximately eight miles to the southeast. The proposed project would be surrounded by private lands that are not intended for general public use. Some residents or other users may use the nearby access roads for hiking or horseback riding activities, but no designated trails exist near the proposed project site. However, with a valid permit, Tejon Ranch allows access to its lands for hunting and fishing.

The increased use or need for recreational facilities is generally spurred by population growth in an area. As described in Section 5.5.11, the proposed project would not induce population growth. Consequently, there would be no increase in use of recreational lands or parks that would cause substantial physical deterioration. In addition, the proposed project would not include the construction or expansion of recreational facilities. Therefore, no impacts would occur on recreation as a result of the proposed project.

### **5.5.14 Transportation and Traffic**

The Tehachapi East Afterbay project site could be accessed from two routes: Pump Plant Road via West 300th Street or via a dirt road located north of the proposed project (currently running east-west) also via West 300th Street in Los Angeles County. To reach the proposed project site, vehicles exit Lancaster Road (SR-138) at 300th Street West, approximately eight miles east of the I-5 Freeway. SR-138 originates to the west at the 8-lane Interstate 5 (Golden State Freeway) in northern Los Angeles County and is a rural two-lane highway. From 300th Street West, vehicles can access the proposed site via Pump Plant Road or via the dirt road located north of the area of the proposed project. To access the proposed site via Pump Plant Road, which is a private two-lane road on Tejon Ranch Company property, vehicles turn left onto Pumping Plant Road. From Pump Plant Road, the California Aqueduct is accessed through a locked gate managed by CDWR. Alternatively, the proposed site can be accessed via the dirt road located north of the proposed project site by following 300th Street West north and crossing over the California Aqueduct. The dirt road entrance is located on the left. This road is located on Tejon Ranch Company property and has a locked gate. The current access roads in the general area of the existing Tehachapi Afterbay provide the landowner and CDWR staff access to Oso Pumping Plant, the California Aqueduct embankment, a civil maintenance yard, Cottonwood Chute, and the Porter Tunnel south portal (CDWR 2002).

Level of Service (LOS) data for SR-138 between I-5 and Lancaster was obtained for the years 1992, 1997, and 2003. LOS is a qualitative rating of the effectiveness of a highway facility in serving traffic in terms of

operating conditions such as traffic flow. LOS ratings range from “A” (condition of free traffic flow where there is little or no restriction in speed) to “F” (condition of forced-flow operation at low speed with many stoppages). The data indicated that SR-138, between I-5 and Lancaster, has a LOS rating of “A” for 1992, 1997 and 2003 (MTA 2003). This suggests that currently there are good highway-operating conditions in the area of the proposed project.

Overall, the proposed project would have less-than-significant impacts on transportation and traffic. Construction of the proposed project, however, may cause distribution of traffic flows during construction, including potential lane blockages and temporary street closures. A total of 10,029 haul truck trips are estimated to occur during the 17 months of construction, with roundtrip commute distances as short as 60 miles (Lancaster) and as far as 200 miles (Port of Los Angeles) (CDWR 2003e). These traffic congestion impacts would be short term in nature, although truck traffic would be noticeable on the local and private roadways between SR-138 and the proposed project site. This level of short-term project-related traffic on SR-138 would be less than significant, and would not permanently exceed the established level of service standards. However, temporary delays may be encountered as vehicles and trucks eastbound on SR-138 going to the project site must make a left turn onto 300<sup>th</sup> Street West, where there is no existing left turn lane.

Additionally, temporary construction-related traffic would be noticeable on the local and private roadways between SR-138 and the proposed project site, where minimal traffic is currently observed. An average of 65 workers would be required for construction with a peak on-site crew of approximately 100 workers (CDWR 2004i). Workers would generally commute from the Bakersfield, Los Angeles, Lancaster, or Frazier Park areas, with an assumed average commute of 70 miles each way (140 miles roundtrip) (CDWR 2004h). The length of a typical construction workday would be eight hours per day, five days per week, although during reservoir excavation activities, one shift of ten hours per day, six days per week is anticipated. During critical periods of construction, such as outage periods, two 12-hour shifts may also be utilized (CDWR 2004i).

To ensure that construction-related traffic impacts are minimized, mitigation measures TRA-1 and TRA-2, presented below would be implemented. Implementation of these measures, as well as appropriate transportation permits (for heavy loads), construction traffic impacts would be reduced to less-than-significant levels.

**TRA-1** CDWR shall develop and implement a detailed Traffic Control Plan (TCP), prepared by a registered Traffic Engineer. The TCP shall define the location of any roadway closures, traffic detours, haul routes, and hours of operation in accordance with professional engineering standards. The TCP shall also define the use of flaggers, warning signs, lights, barricades, cones, etc. according to standard guidelines outlined in the Caltrans Traffic Manual and the Work Area Traffic Control Handbook (WATCH).

**TRA-2** Damage, due to construction traffic on SR-138 and the local roadways between SR-138 and the project site, shall be repaired upon completion of on-site construction activities.

Activities associated with construction of the reservoir could temporarily increase the potential for accidents. Construction-related traffic within Kern County and Los Angeles County, associated with the transport of construction materials to and from the proposed project site, would result in a temporary increase in the



potential for traffic hazards. Impacts would be considered less than significant because the activities would be conducted in accordance with the requirements of the Kern County Roads Department and the Los Angeles County Department of Public Works, and because any such safety issues would be addressed in the construction worksite traffic control plan described in mitigation measure TRA-1 (see above). The proposed project would not, therefore, substantially increase hazards due to a design feature or incompatible uses.

In addition, construction of the proposed project may generate a temporary demand for parking for construction workers vehicles. On-site parking would be available within the project boundaries as defined by CDWR and Tejon Ranch Company. Therefore, the proposed project would not create significant impacts on parking capacity.

On-going project operations would consist of occasional maintenance-related vehicle trips, which would not cause a noticeable increase in traffic, and would not require permanent on-site operational personnel. As such, facilities such as bus turnouts and bicycle racks would not be required. Additionally, emergency access to the existing California Aqueduct facilities would remain relatively unchanged, with the exception of construction of new access roads. Paved access roads would be constructed around the proposed reservoir from the isolation weir to the outlet channel (6,950 feet), around the inlet channel from the inlet weir to the isolation weir (1,800 feet), around the outlet channel from the proposed reservoir to headworks (1,000 feet), and on the east and west side of the improved headworks area (750 feet) (CDWR 2004g). A new gravel maintenance road would be constructed from the bypass stilling basin to the culvert outlet (2,500 feet). Gravel maintenance roads would also be improved in the proposed project area (approximately 25,000 feet with 20-foot width) (CDWR 2004g) to support construction and maintenance activities. Existing paved, gravel, and dirt roadways would also be utilized during construction.

Furthermore, the proposed project would not result in change in air traffic patterns that would result in substantial safety risks. The nearest public airport is Rosamond Skypark Airport located approximately 27 miles to the east. Additional public airports include General William J. Fox Airfield in Lancaster, Mojave Airport, and Edwards Air Force Base. Due to the distance from any airports, combined with the fact that no features of the project would interfere with aircraft operations in the area, the proposed project would not cause any impacts on current air traffic patterns or safety.

Therefore, the proposed project would not have long-term impacts on roadways or traffic operations in the project vicinity, and would not result in inadequate emergency access. Traffic and transportation impacts associated with project operation would be less than significant.

### **5.5.15 Utilities and Service Systems**

Utility and service system facilities associated with electricity, domestic (potable) water, stormwater, solid waste, communications, and natural gas are typically provided and maintained by a variety of local purveyors, including cities, counties, special districts, utility agencies, and private companies. Utilities such as domestic water, wastewater and stormwater sewers, and natural gas are usually transmitted via underground pipelines or conduits. Increasingly, electricity and telecommunication services are also installed underground. The vast majority of the urban utility and public service infrastructure exists within public ROWs. Utilities to be relocated as a result of the proposed project include several poles and lines northeast of Check 42 (headworks)

owned by Southern California Edison, and a fiber optic cable (FOC) owned by MCI. The poles and lines would be rerouted to the southwest of Check 42. The FOC would be rerouted prior to modifications of Alamo Headworks construction. A new power service line may also be installed, which would connect to the new control building.

The National Cement Company operates a 12-inch diameter water well southwest of the proposed project site (CDWR 2002), near the turnoff from Pumping Plant Road to the Alamo Powerplant. The water well discharge line runs parallel to Pumping Plant Road. As such, the National Cement Company water well and associated discharge line would not be affected by the proposed project.

As part of the project commitments, all utilities disrupted by the construction of the proposed project would be restored during and after construction by CDWR or its construction contractor, as desired by the utility owner. In addition, all exposed abandoned utility conduits would be removed to a distance of at least 50 feet from the reservoir embankment (CDWR 2003d).

During construction, the contractor would not generate wastewater, and the proposed project would not require or result in the construction of new water or wastewater treatment facilities, or generate increased stormwater runoff in the project area. Rain that falls within the reservoir would be contained by the reservoir and would not contribute to stormwater drainage requirements. Water needs during project construction would be minor and temporary. The construction contractor would be allowed to obtain water from the Aqueduct for construction purposes (CDWR 2003c). Use of water from the Aqueduct for irrigation purposes may also be required. Potable water would not be required for construction or operation of the East Afterbay.

Virtually the entire reservoir pool would be constructed in excavation. Approximately 3.2 million cubic yards of material excavated (cut) from the reservoir site would form the spoil pile and embankment. Soil from site preparation activities and concrete rubble from demolition activities would be hauled offsite to the Lancaster Landfill. Lancaster Landfill is managed by Waste Management Inc. and is located about 35 miles one-way from the proposed project site. It is expected that the proposed project would generate approximately 4,400 tons of solid waste during construction. Currently, Lancaster Landfill has a permitted capacity of 1,700 tons of municipal solid waste per day (Lancaster Landfill 2004). The solid waste hauled offsite during construction would not exceed the daily permitted capacity of Lancaster Landfill. Therefore, Lancaster Landfill would have sufficient permitted capacity to accommodate the project's solid waste disposal needs. As a result, less-than-significant impacts on landfill capacity would occur. Additionally, operation of the Tehachapi East Afterbay would comply with federal, state, and local statutes and regulation related to solid waste. Therefore, no significant impacts on service systems would occur as a result of the Tehachapi East Afterbay Project.